2015 Sea Ice Outlook
Regional Submission - Nares Strait

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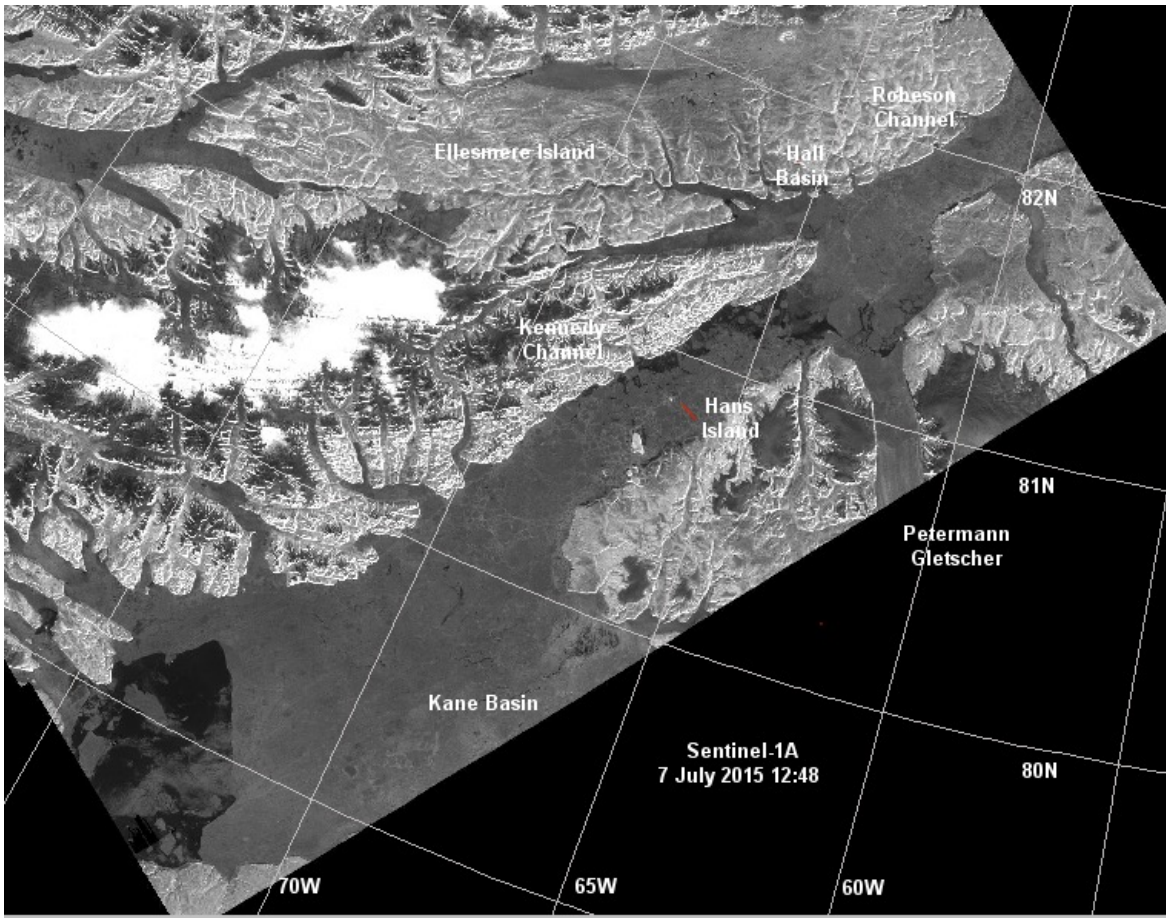

Nares Strait

In the Outlook for June we predicted that the barrier in the western Kane Basin that stopped south-going ice drift since early February would break down by 18-20 June. However, this happened two weeks later, beginning by 4 July. The Sentinel radar scene above acquired on 7 July shows the gradual break off of ice from the coast of Ellesmere Island and off Inglefield Land on the opposite side of the Strait. (The scene also shows a wind pattern in part of the open water extending over the ice eastwards probably from surface ripples in melt water ponds on the ice).

Obviously, we do not know the thickness of the ice but the low temperatures experienced during the winter lasting to the beginning of June have strengthened the ice canopy so that it could overcome the unusual high temperatures observed since 8 June with weekly average temperatures rising from 1.4°C to 5.5°C till 5 July with a maximum temperature of 12°C. It might also be of importance that since 4 June the scene was dominated by winds from south. In fact we observe only two periods with northern winds comprising 27% of the time with weekly average temperatures from 2.1°C to 4.4°C. Average winds in the two periods were moderate at 6.2 m/s and 3.8 m/s, respectively.

In summary, 2015 seems to be a special year with a cold winter that extended slightly longer than before and in June with a high percentage of winds from south that turned out to be warmer than observed in previous years by 2 to 3 degrees expressed in weekly averages. Two periods had northern winds at positives temperatures thus contributing to surface melt of the almost permanent winter ice cover of the Nares Strait.

With these observations in mind and with the lack of a prediction of the meteorological condition in the Strait we shall refrain from stating dates for the forthcoming ice conditions. However, with the break-up of the canopy in the northern part of the Kennedy Channel and in the Hall Basin observed by the end of June we suggest that with the break-up of the ice barrier observed there are reasons to believe that ice transport from the Lincoln Sea will be resumed before the end of July.